

Appl. No. : 10/015,813
Filed : November 02, 2001

AMENDMENTS TO THE CLAIMS

Please amend Claims 1-9, 11, and 12 as follows:

1. **(Currently Amended)** An outboard motor having an electrical generator and integral cooling arrangement therefor, said the motor including:

an internal combustion engine having an engine block, a crankshaft, and a bearing that journals a portion of the crankshaft for rotation within said the engine block,

an electrical generator comprising :

(i) a stator armature comprising a series of stacked plates formed of a material having high magnetic permeability,

(ii) a heat conductive plate having substantially the same planar dimensions as said the stacked plates, said the heat conductive plates plate formed of a material having a higher heat conductivity than that of said the stacked plates having high magnetic permeability, said the heat conductive plate abutted against one of said the stacked plates having high magnetic permeability;

(iii) an armature coil wound around the assembly of said the stacked plates of magnetic permeability and said the heat conductor plate so that the heat conductive plate is an integral part of said the stator armature; and

(iv) a rotor coupled to said the crankshaft so as to rotate therewith, the rotor having magnets that are arranged next to rotatably mounted in juxtaposition with said the stator armature; and

a stator bracket formed of a material having high heat conductivity, said the bracket directly attached to said the engine block and said the conductive plate integral with said the stator armature so that the resistance heating within said the stator armature is transferred through said the conductive plate and said the stator bracket to the engine block.

2. **(Currently Amended)** An electrical generator for a watercraft, said the generator having an integral cooling arrangement comprising

a stator armature comprising:

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- (i) a series of stacked plates formed of a material having high magnetic permeability;
- (ii) a heat conductive plate having substantially the same planar dimensions as said the stacked plates, said the heat conductive plate formed of a material having a higher heat conductivity than said the stacked plates, said the heat conductive plate abutted against one of said the stacked plates having high magnetic permeability; and
- (iii) an armature coil wound around the assembly of said the stacked plates of magnetic permeability and said the heat conductive plate so that heat conductive plate is an integral part of said the stator armature; and
- (iv) a rotor rotating relative to the stator armature, the rotor having a plurality of permanent magnets arranged next to rotatably mounted in juxtaposition with said the stator armature.

3. **(Currently Amended)** An electrical generator having an integral cooling arrangement comprising:

- a stator armature comprising a series of stacked plates formed of a material having magnetic permeability;
- a heat conductive plate having substantially the same planar dimensions as said the stacked plates, said the heat conductive plate formed of a material having a higher heat conductivity than said the stacked plates;
- said the heat conductor conductive plate abutted against one of said the stacked plates having magnetic permeability; and
- an armature coil wound around the assembly of said the stacked plates of magnetic permeability so that said the heat conductive plate is an integral part of said the stator armature.

4. **(Currently Amended)** The electrical generator of Claim 3 wherein said the heat conductive plate is formed of aluminum.

5. **(Currently Amended)** The electrical generator of Claim 3 wherein said the heat conductive plate is formed of a material with a thermal conductivity equal to that of aluminum.

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6. **(Currently Amended)** The electrical generator of Claim 3 wherein ~~said the heat~~ conductive plate is formed of a material with a thermal conductivity equal or greater than that of aluminum.

7. **(Currently Amended)** The electrical generator of Claim 3, wherein ~~said the~~ stator bracket is formed of aluminum.

8. **(Currently Amended)** The electrical generator of Claim 3, wherein ~~said the~~ stacked plates having magnetic permeability are formed of iron.

9. **(Currently Amended)** An electric generator ~~configuration driven by a marine engine having a crankshaft; designed to better dissipate the heat generated by electrical induction mounted on a watercraft marine engine having at least one cylinder and crankshaft, said the system comprising:~~

~~the electrical generator being mounted on said engine~~ located at one end of the crankshaft and comprising:

a series of uniformly spaced radially extended armature legs made of metal having magnetic permeability attached to a similar shaped aluminum plate; and

~~a flywheel rotor attached to said the crankshaft, the rotor containing various a plurality of magnets to induce an electrical current in said the armature legs ;~~

10. **(Original)** The electric generator configuration of Claim 9, wherein the armature legs and aluminum plate are mounted to an aluminum stator bracket.

11. **(Currently Amended)** The electric generator configuration of Claim 9, wherein the heat induced is designed to be directly dissipated through ~~said the~~ aluminum plate to the stator bracket.

12. **(Currently Amended)** The electric generator configuration of Claim 10, wherein ~~said the~~ stator bracket is mounted to the cylinder block of ~~said the~~ marine engine.

Please add Claim 13.

13. **(New)** The electric generator configuration of Claim 9, wherein the rotor is a flywheel rotor.